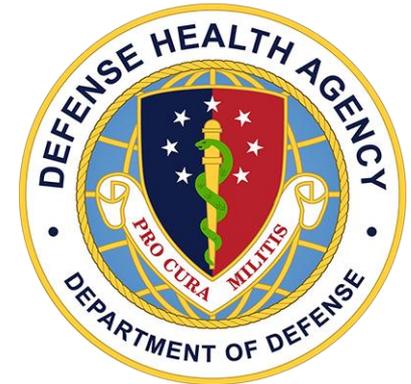


Department of Defense
Armed Forces Health Surveillance Branch
Zika Virus in the Americas Surveillance Summary
(24 MAR 2016)



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DEPARTMENT OF DEFENSE (AFHSB)

Zika Virus in the Americas Surveillance Summary #10

24 MAR 2016 (next report 30 MAR 2016)



DoD SURVEILLANCE: On 8 FEB, AFHSB released guidelines for [Detecting and Reporting DoD Cases of Acute Zika Virus Disease](#); it is being updated. Confirmed cases should be reported in DRSi as “Any Other Unusual Condition Not Listed,” with “Zika” entered in the comment field along with pertinent travel history and pregnancy status.

FDA granted [Emergency Use Authorizations \(EUA\)](#) for the CDC’s [Triplex Real-time RT-PCR Assay for Zika, dengue, and chikungunya viruses on 18 MAR](#), and the ZIKA MAC_ELISA IgM assay on 26 FEB. The IgM assay will initially be available at seven (+3) DoD laboratories. **The PCR assay kits will be shipped to all Army medical centers (plus WRNMMC), USAMRIID, USAFSAM, NIDDL, and NHRC. All labs need to complete training and a qualification panel before they are authorized to begin testing.** The [NIDDL](#) currently has ZIKV PCR testing available for clinical diagnosis using a laboratory developed test. Testing can be requested through the Composite Health Care System in the National Capital Region (NCR); others should use the NIDDL’s [test request form](#).

The Armed Forces Pest Management Board issued updated [vector control guidance](#) for *Aedes* mosquitoes on 2 MAR. The [Armed Services Blood Program Office](#) implemented the American Association of Blood Banks’ [guidance](#) for reducing the risk of Zika, dengue, and chikungunya virus transmission through blood products on 12 FEB.

CASE REPORT: From 1 MAY 2015 to **24 MAR 2016**, confirmed autochthonous transmission of ZIKV has been reported in **33 (+1, [Dominica](#))** countries and territories in the Western Hemisphere. PAHO believes ZIKV will continue to spread in the hemisphere and could reach all areas where *Aedes* mosquitoes are found (excludes Canada and continental Chile). U.S. health officials say limited outbreaks are possible but widespread outbreaks in the continental U.S. are unlikely.

Outside of the Americas, ongoing ZIKV transmission is reported from American Samoa, Cape Verde, the Marshall Islands, New Caledonia, Samoa, and Tonga, with additional confirmed cases reported from **Federal States of Micronesia**, Fiji, the Philippines, Thailand, and Laos. Past outbreaks were reported from other areas of Africa, Asia, and the Pacific Islands, and sporadic cases may continue to occur. Several European countries, **Republic of Korea**, China, Canada, Australia, and Israel have reported travel-related ZIKV infections.

Western Hemisphere Countries and Territories Reporting Autochthonous Zika Virus Infections as of 24 MAR 2016



Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (16 MAR 2016).

All information has been verified unless noted otherwise. Additional sources include: Pacific Public Health Surveillance Network

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CASE REPORT (cont'd): As of **23 MAR**, CDC and several states report at least **258 (+47)** travel-related and six locally-acquired sexually transmitted ZIKV cases in 35 U.S. states and the District of Columbia since MAY 2015; no autochthonous vector-borne cases have been reported. There are **19 (+1) confirmed and 12 suspect** cases in pregnant women; among whom there has been one case of microcephaly, two cases of intrauterine fetal demise, three terminations, seventeen ongoing pregnancies, seven healthy infants delivered and **one** pregnancy under investigation. Puerto Rico reports **261 (+36)** confirmed cases, including 14 pregnant women. CDC has developed a [U.S. Pregnancy Registry](#) to identify and track the health of pregnant women with confirmed ZIKV infection, their pregnancy outcomes, and the health of their infants for one year.

ZIKA AND MICROCEPHALY: As of **19 MAR**, Brazil is investigating **4,293 (+92)** suspect microcephaly cases, including **198 (+15)** deaths; Brazil has completed investigating **2,378 (+181)** suspect cases; **907 (38%)** were confirmed as microcephaly suggestive of congenital infection and **1,471 (62%)** were ruled out. Hawaii and Slovenia have each reported a microcephaly case linked to ZIKV infection acquired in Brazil. Colombia is investigating possible cases. **On 19 MAR, Panama reported a case of microcephaly in a newborn with a ZIKV infection.** Investigators continue to work on establishing a definitive causal link between ZIKV infection during pregnancy and subsequent congenital neurological malformations. [The Lancet](#) published a study on 15 MAR that estimated a microcephaly rate of 95 cases per 10,000 women infected during the first trimester from modeling based on eight microcephaly cases identified during the 2013-2015 Zika epidemic in French Polynesia. Although there are a number of limitations to the study, researchers reported in an 8 MAR [MMWR article](#) temporal and geospatial evidence linking the occurrence of a febrile rash illness consistent with Zika virus disease during the first trimester of pregnancy to a 4.6-fold increased prevalence of microcephaly among newborns in Northeast Brazil. A study in the [New England Journal of Medicine](#) on 4 MAR suggests ZIKV infection during pregnancy may be associated with “grave outcomes, including fetal death, placental insufficiency, fetal growth restriction, and CNS injury.” A study published on 4 MAR in [Cell Stem Cell](#) shows ZIKV is capable of infecting and damaging neural stem cells in vitro. Laboratory results, including PCR and tissue sample testing [performed by CDC](#), confirmed the presence of ZIKV RNA in four malformation deaths in Rio Grande Norte.

ZIKA AND GUILLAIN-BARRÉ SYNDROME: According to [WHO on 24 MAR](#), **11 (+3)** countries in the Western Hemisphere and French Polynesia have reported Guillain-Barré syndrome (GBS) cases that may be associated with the introduction of ZIKV. A [case-control study](#) published in [The Lancet](#) on 29 FEB is the first to provide substantial evidence for a causal link between ZIKV infection and GBS. **The U.S. reports one GBS case linked to ZIKV, and there is one case reported in Puerto Rico.**

CDC GUIDANCE: On 15 JAN, CDC began issuing public health, clinical, and laboratory guidance on ZIKV. These documents are available through the CDC's [Zika Virus](#) web page. **CDC issued guidance on preventing transmission of ZIKV in labor and delivery settings through implementation of standard precautions on 22 MAR. On 21 MAR, CDC published tools for health care providers for evaluating pregnant woman and infants.** Zika virus disease is a [notifiable disease](#) in the U.S.

TRAVEL ADVISORY: On 11 MAR, CDC, which had been issuing regional travel notices, issued individual Alert Level 2, Practice Enhanced Precautions travel notices for **39 countries and territories** that include subnational risk assessments based on elevation. According to CDC, there is minimal ZIKV transmission risk at locations above 6,500 feet (2,000 meters) elevation. A level 2 alert has been posted for travelers to the [2016 Olympic games](#) in Rio de Janeiro.

GLOBAL RESPONSE: On 15 MAR, WHO published [interim guidance](#) on entomological surveillance for *Aedes* mosquitoes. On 3 MAR, WHO published a [report](#) on Zika diagnostic, treatment, and prevention products in development and published a [statement](#) on 9 MAR on research and development priorities for Zika medical products. The second meeting of the WHO [Emergency Committee](#) on clusters of microcephaly cases and other neurological disorders in some areas affected by ZIKV met on 8 MAR. The Committee said that the clusters of microcephaly cases and other neurological disorders continue to constitute a Public Health Emergency of International Concern (PHEIC), and that there is increasing evidence of a causal relationship with Zika virus. On 16 FEB, the WHO launched a global [Strategic Response Framework and Joint Operations Plan](#) to guide the international response. For additional information, visit the [WHO](#) and [PAHO](#) Zika web pages.

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Western Hemisphere Countries and Territories with Autochthonous Transmission of Zika Virus: 01 JAN 2015 – 22 MAR 2016

Country/Territory	Confirmed	Suspected	Deaths	Microcephaly Cases	Reporting GBS
Aruba	4	0	0	NR	No
Barbados	7	316	0	NR	No
Bolivia	12	0	0	NR	No
Bonaire	1	0	0	NR	No
Brazil	534	72,062	4	5,200*	Yes†
Colombia	2,355	53,369	0	NR	Yes†
Costa Rica	8	0	0	NR	No
Cuba	1	0	0	NR	No
Curaçao	1	0	0	NR	No
Dominican Republic	18	670	0	NR	No
Dominica	1	0	0	NR	No
Ecuador	53	0	0	NR	No
El Salvador	3	9,597	0	NR	Yes†
French Guiana	190	2,265	0	NR	Yes†
Guadeloupe	105	805	0	NR	No
Guatemala	210	756	0	NR	No
Guyana	1	0	0	NR	No
Haiti	5	329	0	NR	Yes†
Honduras	2	16,536	0	NR	Yes†
Jamaica	1	0	0	NR	No
Martinique	12	10,950	0	NR	Yes†
Mexico	151	0	0	NR	No
Nicaragua	119	0	0	NR	No
Panama	117	0	0	NR	Yes†
Paraguay	7	0	0	NR	No
Puerto Rico	261	0	0	NR	Yes†
Saint Martin	21	129	0	NR	No
Saint Vincent and the Grenadines	1	0	0	NR	No
Sint Maarten	2	0	0	NR	No
Suriname	2	2,352	4	NR	Yes†
Trinidad and Tobago	4	0	0	NR	No
U.S. Virgin Islands	12	94	0	NR	No
Venezuela	352	15,495	1	NR	Yes†
Total	4,573	185,725	9	5,200	11 Countries

* Confirmed (907) and suspected (4,293) microcephaly cases; excludes investigated and ruled out (1,471) as of 19 MAR

† Reported increase in GBS cases associated with the introduction of ZIKV and/or GBS case(s) linked to ZIKV infection

Sources: Zika cases reported to PAHO as of 22 MAR, except for microcephaly reported by the Brazil MOH as of 19 MAR; Zika cases reported by the health department in the U.S. Virgin Islands as of 22 MAR; and GBS cases reported to WHO as of 17 MAR.

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24 MAR 2016



Additional Resources and Media Reports

Zika Web Sites

- [Military Health System Zika Page](#)
- AFHSB Guidance
 - [Detecting and Reporting DoD Cases of Acute Zika Virus Disease](#)
- Armed Forces Pest Management Board
 - [Aedes Mosquito Vector Control](#)
- CDC
 - [Zika home page](#)
 - [Information for health care providers](#)
 - [Zika virus disease Q&A](#)
 - [Travel notices](#)
 - [Zika and pregnancy](#)
- [PAHO Zika Page](#)
- [WHO](#)
 - [Weekly SITREP \(24 MAR\)](#)
 - [Zika home page](#)
 - [Publications and technical guidance](#)
- [ECDC](#)
- [Agencia Brasil](#)
(official government news agency)

Information and News

- [Preventing transmission of Zika virus in labor and delivery settings through implementation of standard precautions — United States, 2016 \(CDC, 22 MAR\)](#)
- [Zika communication planning guide for states \(CDC, 21 MAR\)](#)
- [Travel-associated Zika virus disease cases among U.S. residents — United States, January 2015–February 2016 \(CDC, 18 MAR\)](#)
- [Association between Zika virus and microcephaly in French Polynesia, 2013–15: a retrospective study \(The Lancet, 15 MAR\)](#)
- [Entomological surveillance for Aedes spp. in the context of Zika virus \(WHO, 15 MAR\)](#)
- [WHO and experts prioritize vaccines, diagnostics and innovative vector control tools for Zika R&D \(WHO, 9 MAR\)](#)
- [WHO statement on the 2nd meeting of IHR Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations \(WHO, 8 MAR\)](#)
- [Increase in reported prevalence of microcephaly in infants born to women living in areas with confirmed Zika virus transmission during the first trimester of pregnancy — Brazil, 2015 \(CDC, 8 MAR\)](#)
- [Zika virus infects human cortical neural progenitors and attenuates their growth \(Cell Stem Cell, 4 MAR\)](#)
- [Zika virus infection in pregnant women in Rio de Janeiro — preliminary report \(NEJM, 4 MAR\)](#)
- [Top 10 Zika response planning tips: brief information for state, tribal, local, and territorial health officials \(CDC, 4 MAR\)](#)
- [Current Zika product pipeline \(WHO, 3 MAR\)](#)
- [Guillain-Barré Syndrome outbreak associated with Zika virus infection in French Polynesia: a case-control study \(The Lancet, 29 FEB\)](#)
- [Zika MAC-ELISA Emergency Use Authorization \(CDC, 27 FEB\)](#)
- [Zika virus infection among U.S. pregnant travelers — August 2015–February 2016 \(CDC, 27 FEB\)](#)
- [Transmission of Zika virus through sexual contact with travelers to areas of ongoing transmission — Continental United States, 2016 \(CDC, 27 FEB\)](#)
- [Collection and submission of body fluids for Zika virus testing \(CDC, 25 FEB\)](#)
- [Update: interim guidelines for prevention of sexual transmission of Zika virus — United States, 2016 \(CDC, 23 FEB\)](#)
- [Update: interim guidelines for healthcare providers caring for infants and children with possible Zika virus infection — United States, February 2016 \(CDC, 19 FEB\)](#)
- [Recommendations for donor screening, deferral, and product management to reduce the risk of transfusion-transmission of Zika virus \(FDA, 16 FEB\)](#)
- [Notes from the Field: evidence of Zika virus infection in brain and placental tissues from two congenitally infected newborns and two fetal losses — Brazil, 2015 \(CDC, 10 FEB\)](#)
- [Ocular findings in infants with microcephaly associated with presumed Zika virus congenital infection in Salvador, Brazil \(JAMA, 9 FEB\)](#)
- [Interim guidelines for prevention of sexual transmission of Zika virus — United States, 2016 \(CDC, 5 FEB\)](#)
- [Update: interim guidelines for health care providers caring for pregnant women and women of reproductive age with possible Zika virus exposure — United States, 2016 \(CDC, 5 FEB\)](#)

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